

## Claims

- [c1] A method of automatically configuring a first automation device connected to a network system using an automation specific protocol, the steps comprising:
  - searching for an address of a configuration server by said first automation device;
  - searching a memory of the configuration server for a configuration designated for said first automation device; and
  - loading said configuration from the configuration server into said first automation device using the automation specific protocol.
- [c2] The method of claim 1 wherein the automation specific protocol is MODBUS/TCP.
- [c3] The method of claim 1 wherein the automation specific protocol is MODBUS.
- [c4] The method of claim 1 wherein the first automation device is a programmable logic controller.
- [c5] The method of claim 1 wherein the first automation device is an IO module.

- [c6] The method of claim 1 further comprising:
  - scanning a bar code identifier of the first automation device;
  - scanning a bar code identifier for a second automation device;
  - replacing the bar code identifier for the first automation device in the memory of the configuration in the configuration server with the bar code identifier of the second automation device.
- [c7] The method of claim 1 further wherein the search of the memory of the configuration server is performed by the configuration server.
- [c8] A factory automation system for the automatic configuration of automation devices, the system comprising:
  - a network utilizing an automation specific protocol;
  - a configuration server connected to the network, containing at least one configuration for the automation devices, wherein said at least one configuration is available to said automation devices;
  - the automation devices connected to the network, capable of searching for the configuration server on the network utilizing the automation specific protocol, finding a specific configuration within said configuration server, and loading the specific configuration.

- [c9] The factory automation system of claim 7 wherein the automation specific protocol is MODBUS/TCP.
- [c10] The factory automation system of claim 7 wherein the automation specific protocol is MODBUS.
- [c11] The factory automation system of claim 7 wherein the automation devices comprise of at least one programmable logic controllers.
- [c12] The factory automation system of claim 7 wherein the automation devices comprise of at least one IO module.
- [c13] The factory automation system of claim 7 wherein the automation system is capable of the replacement of at least one automation device through the removal of the at least one automation device, the connection of at least one replacement automation device, wherein the at least one replacement device is capable of searching for the configuration server on the network utilizing the automation specific protocol, finding a specific configuration for the at least one automation device within said configuration server, and loading the specific configuration into the at least one replacement automation device.
- [c14] An automation device comprising:  
a connection to a network using an automation specific protocol;

a process executing on the automation device, said process accessing the network,  
said process capable of searching the network using the automation specific protocol for a configuration server,  
said configuration server containing a specific configuration for the automation device,  
said process further capable of searching the configuration server for the specific configuration for said automation device, and loading said specific configuration into the automation device.

- [c15] The automation device of claim 12 wherein the automation specific protocol is MODBUS/TCP.
- [c16] The automation device of claim 12 wherein the automation specific protocol is MODBUS.
- [c17] The automation device of claim 12 wherein the automation device is a programmable logic controller
- [c18] The automation device of claim 12 wherein the automation device is an IO module.